

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

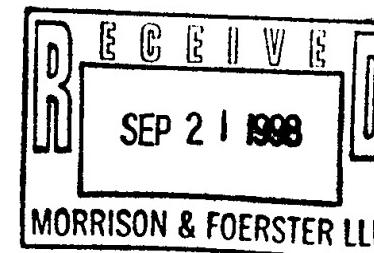
In the reissue application of:

Ann MONOSOV et al.

Patent No.: 5,569,812

Issue Date: October 29, 1996

For: NUDE MOUSE MODEL FOR HUMAN  
NEOPLASTIC DISEASE



**REISSUE APPLICATION DECLARATION AND POWER OF ATTORNEY  
BY INVENTOR**

Box 7  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, I believe I am first and joint inventor of the subject matter that is described and claimed in letters patent number 5,569,812, granted on October 29, 1996, and in the foregoing specification, and for which invention I solicit a reissue patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 C.F.R. § 1.56(a) and (b).

- In compliance with this duty, there is attached an information disclosure statement in accordance with 37 C.F.R. § 1.98

I hereby claim foreign priority benefits under 35 U.S.C. § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

EARLIEST FOREIGN APPLICATION(S) IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION			
COUNTRY (if PCT indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. § 119
*			<input type="checkbox"/> YES <input type="checkbox"/> NO

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*			<input type="checkbox"/> YES <input type="checkbox"/> NO

#### STATEMENT OF INOPERATIVENESS OR INVALIDITY OR INVALIDITY OF ORIGINAL PATENT

That I believe the original patent to be

- partly  
 wholly

inoperative or invalid because of error without any deceptive intent on the part of the applicant pursuant to 37 C.F.R. § 1.175(a)(6).

The statement below specifies the errors relied upon, and how they arose pursuant to 37 C.F.R. § 1.175(a)(5).

- why the original patent is believed to be wholly or partly inoperative or invalid (37 C.F.R. § 1.175(a)(1));  
 particularly the defects upon which the claim that such patent is inoperative or invalid "by reason of a defective specification or drawing" is based (37 C.F.R. § 1.175(a)(3); and or

- distinctly the excess or insufficiency in the claims that make the patent inoperative or invalid "by reason of the patentee claiming more or less than he had a right to claim in the patent."(37 C.F.R. § 1.175(a)(3);
- Corroborating affidavits or declarations of others accompany this declaration.(37 C.F.R. § 1.175(b).

### **STATEMENT OF INOPERATIVENESS OR INVALIDITY OF ORIGINAL PATENT**

Applicants present this Declaration in support of the above-captioned application for reissue of U.S. Patent No. 5,569,812 to correct certain errors in the prosecution of the original patent which are discussed in this Declaration.

1. U.S. Patent No. 5,569,812 ("812 patent") issued on October 29, 1996, from Application No. 459,730, filed on June 2, 1995; which is a continuation of Application No. 169,735, filed on December 17, 1993, which issued on February 13, 1996 as U.S. Patent 5,491,284, which is a continuation of Application No. 719,814, filed on June 24, 1991, now abandoned; which is a continuation-in-part of Application No. 253,990, filed October 5, 1988, now abandoned.

2. The present claims of the '812 patent are drawn to a nude mouse model for human neoplastic disease and to a method of generating a nude mouse model for human neoplastic disease. The composition and method of generating relate to a nude mouse having histologically intact human neoplastic tissue of at least 1 mm<sup>3</sup> in size transplanted onto an organ of said mouse which corresponds to the human organ from which said tissue is originally obtained; and having sufficient immuno-deficiency to allow said transplanted neoplastic tissue to grow and mimic the progression of the neoplastic disease in the human donor.

3. The attorney of record who filed and prosecuted the applications which subsequently issued as the '812 patent committed an error on his part, apparently without any deceptive intent, by failing to recognize the full breadth and pioneering nature of the present invention and by accepting claims of a narrower scope than that to which Applicant was entitled. These unduly narrowed claims have resulted in the partial inoperativeness or invalidity of the '812 patent by

reason of the patentee claiming less than he had a right to claim in the patent. (37 C.F.R. § 1.175(a)(3))

4. These errors in claims 1-12 may be deemed to render the claims as granted wholly or partly invalid and therefore should be corrected.

5. The original claims 1-12 are filed herewith without any modifications or amendments thereto. Also presented are new claims 13-29, which seek to broaden the scope of claims as originally issued. Applicant hereby reserves the right to subsequently amend the claims for the purpose of seeking additional breadth in claim scope as appropriate and necessary.

6. Claims 13, 14, 20, and 21 are drawn to compositions and methods of generating a nude rodent model and specifically in claims 14 and 21, wherein said rodent is a rat. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62.

7. Claims 15-17 and 22-24 are drawn to compositions and methods of generating an immunodeficient rodent model and specifically in claims 16 and 23, wherein said rodent is a rat and specifically in claims 17 and 24, wherein said rodent is a mouse. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62.

8. Claims 18 and 25 are drawn to compositions and methods of generating an immunodeficient rodent model and specifically wherein said rodent is a severe combined immunodeficient (SCID) mouse. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62 and in view of the art at the time of the original filing of the '990 application which recognized that SCID mice were immunodeficient due to a lack of mature T-cells.

9. Claims 19 and 26 are drawn to compositions and methods of generating an immunodeficient non-human mammal model. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62.

20. Claims 27-29 are drawn to compositions of immunodeficient models, wherein is deleted the size limitation of 1 mm<sup>3</sup> relating to the histologically intact human neoplastic tissue that is transplanted onto an organ of said immunodeficient models. This size limitation was included at the close of prosecution in the '730 application, apparently in response to a rejection of the claims under 35 U.S.C. § 112, second paragraph.

### **POWER OF ATTORNEY**

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith

Thomas E. Ciotti (Reg No. 21,013)  
Gladys H. Monroy (Reg No. 32,430)  
Paul Schenck (Reg No. 27,253)  
Freddie K. Park (Reg No. 35,636)  
Shmuel Livnat (Reg No. 33,949)  
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Mark R. Carter (Reg No. 39,131)  
Edward V. Donahue (Reg No. 35,492)  
Thomas G. Wiseman (Reg No. 35,046)  
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- Attached as part of this declaration and power of attorney is the authorization of the above-names attorney(s) to accept and follow instructions from my representative.

all of Morrison & Foerster LLP, 2000 Pennsylvania Avenue, N.W., Washington, D.C. 20006-1888, telephone (202) 887-1500, to prosecute this application and transact all matters in the United States Patent and Trademark Office connected therewith.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

09/15/98

  
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Residence: La Jolla, CA  
Citizenship: \_\_\_\_\_  
Post Office Address:  
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La Jolla, CA 92037



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Date

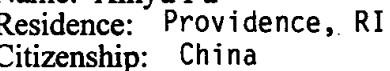
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Citizenship: Russia  
Post Office Address: 8148 Genesee Ave., Suite 120  
San Diego, CA 92122

8/1/98



Date

Name: Xinyu Fu  
Residence: Providence, RI  
Citizenship: China  
Post Office Address: Rhode Island Hospital, Brown University  
Providence, RI



PROSECUTION PENDING